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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,496	05/10/2001	Kaoru Murata	0425-0837P	5554

2292 7590 12/04/2002

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EXAMINER

THERKORN, ERNEST G

ART UNIT PAPER NUMBER

1723

DATE MAILED: 12/04/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

TC-6

Office Action Summary

Application No.

09/831,496

Applicant(s)

MURATA

Examiner

THERKORN

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 21, 2002
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 5-13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Claims 2 and 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The metes and bounds of "low flow velocity" cannot be determined. In claim 7, "the low flow velocity" lacks antecedent basis. In claim 9, "component concentration column" lacks antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koch (U.S. Patent No. 4,475,821). The claims are considered to read on Koch (U.S. Patent No. 4,475,821). However, if a difference exists between the claims and Koch (U.S. Patent No. 4,475,821), it would reside in optimizing the steps and elements of Koch (U.S. Patent No. 4,475,821). It would have been obvious to optimize the steps and elements of Koch (U.S. Patent No. 4,475,821) to enhance separation.

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Claims 1, 2, and 9-13 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Asakawa (U.S. Patent No. 5,117,109). The claims are considered to read on Asakawa (U.S. Patent No. 5,117,109). However, if a difference exists between the claims and Asakawa (U.S. Patent No. 5,117,109), it would reside in optimizing the steps and elements of Asakawa (U.S. Patent No. 5,117,109). It would have been obvious to optimize the steps and elements of Asakawa (U.S. Patent No. 5,117,109) to enhance separation.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (U.S. Patent No. 5,117,109) as applied to claims 1, 2, and 9-13 above, and further in view of Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561. At best, the claims differ from Asakawa (U.S. Patent No. 5,117,109) in reciting analyzing a trace amount of a component. Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561 discloses that liquid chromatography is a powerful and widely used technique for analyzing trace components. It would have been obvious to analyze trace component in Asakawa (U.S. Patent No. 5,117,109) because Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561 discloses that liquid chromatography is a powerful and widely used technique for analyzing trace components.

The remarks urge that "low flow velocity" is defined in the first full paragraph of page 9 of the specification. However, the paragraph merely lists several examples of what is included in "low flow velocity." However, the metes and bounds of "low flow velocity" has not been set forth. Accordingly, the claims are considered to be indefinite.

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The remarks appear to urge patentability based upon the allegation that Koch (U.S. Patent No. 4,475,821) and Asakawa (U.S. Patent No. 5,117,109) do not show a diffusion promoting device just before a separation column. However, Koch (U.S. Patent No. 4,475,821) on column 3, lines 56-58 discloses that mixing chamber 23 is connected to a chromatographic analytical instrument. Koch (U.S. Patent No. 4,475,821) on column 4, lines 36-38 discloses that mixing chamber 23 is illustrated in Figures 2 and 3. The diffusion promoting device reads on these figures. Accordingly, Koch (U.S. Patent No. 4,475,821) discloses a diffusion promoting device just before a separation column. In addition, Asakawa (U.S. Patent No. 5,117,109) on column 6, lines 30-35 discloses use of a pipe of larger diameter than the rest of the pipes in the system going into the separation column. The diffusion promoting device reads on this structure. Accordingly, Asakawa (U.S. Patent No. 5,117,109) discloses a diffusion promoting device just before a separation column.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (703) 308-0362.

A handwritten signature in black ink, appearing to read "Ernest G. Therkorn", written in a cursive style.

Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT/12
December 2, 2002